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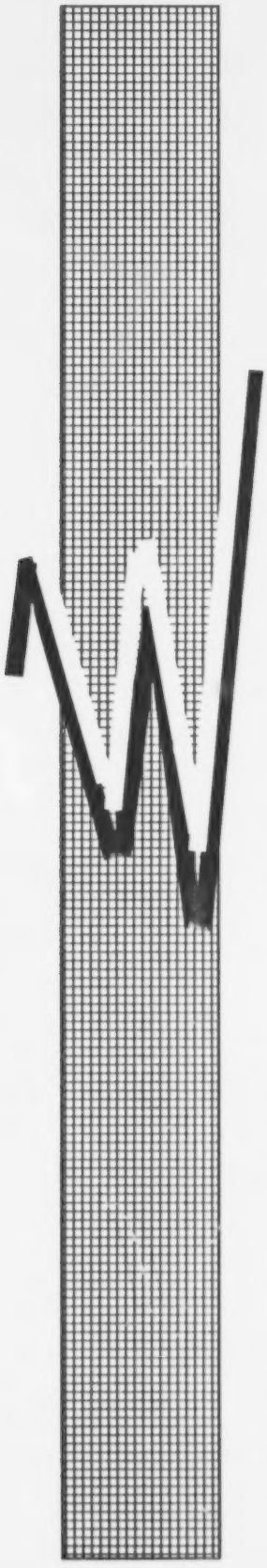

A GUIDE TO

IMPROVING THE NATIONAL EDUCATION DATA SYSTEM

Executive Summary

October 1990

NATIONAL FORUM ON EDUCATION STATISTICS

NCES

National Cooperative Education Statistics System

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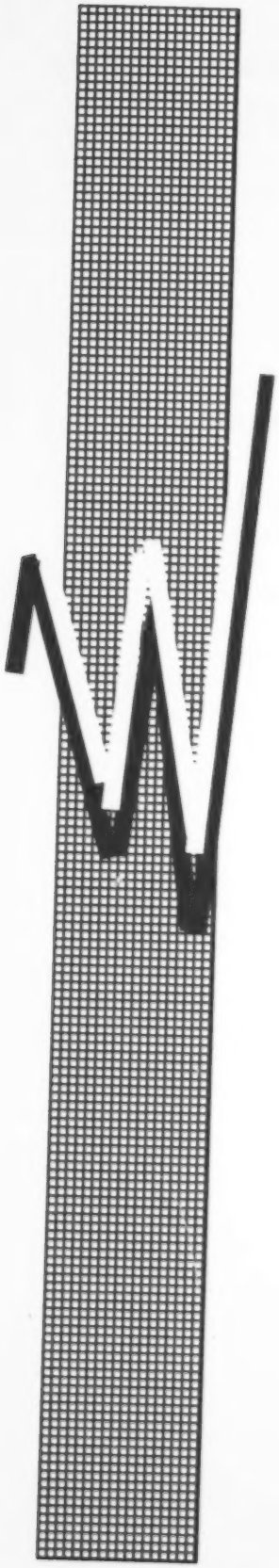

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Edited by:
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Connecticut Department of Education
and
Martin E. Orland
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NATIONAL CENTER FOR EDUCATION STATISTICS

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Acting Secretary

Office of Educational Research and Improvement
Christopher T. Cross
Assistant Secretary

National Center for Education Statistics
Emerson J. Elliott
Acting Commissioner

National Center for Education Statistics

"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

March 1991

A Guide To Improving the National Education Data System

Executive Summary

Introduction

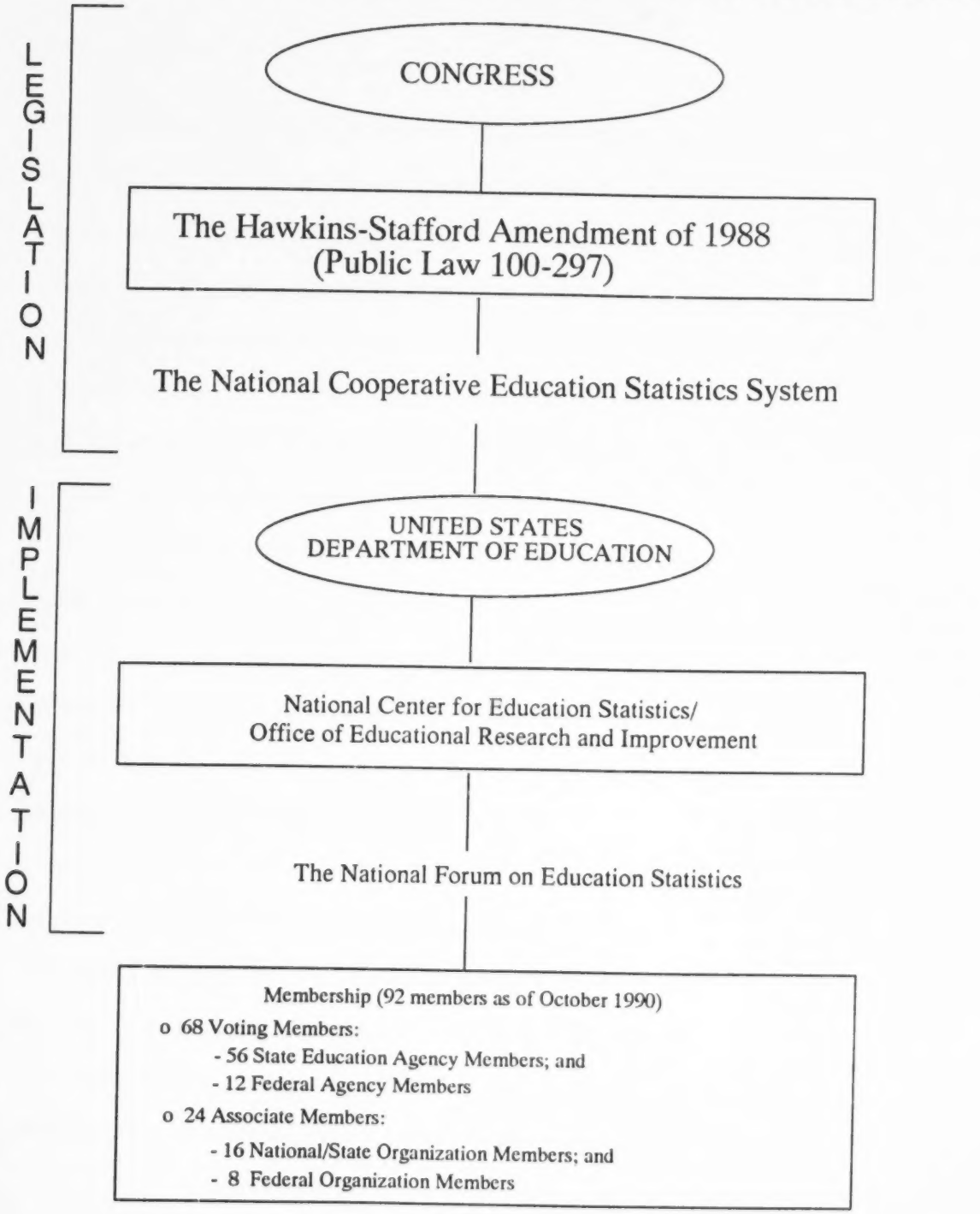
This document provides an overview of the *Guide To Improving the National Education Data System*, the first publication of the newly created National Forum on Education Statistics. The *Guide* contains 36 recommendations for improving the Nation's elementary and secondary education statistics system. This proposed national education data agenda is the product of a broad-based, consensus-building process that brought together representatives of State and Federal education agencies and of organizations with a major interest in education data. Together they have agreed on the types of improvements that are most important for enhancing the usefulness of the education data base.

The cooperative decisionmaking model that shaped the development of the *Guide* and that informs other activities of the National Forum on Education Statistics reflects the spirit of the National Cooperative Education Statistics System, created by the Hawkins-Stafford Education Amendments of 1988 (P.L. 100-297). The Cooperative System provides a legislative mandate and structure for the Federal-State partnership that collects and reports elementary and secondary education statistics under the auspices of the National Center for Education Statistics (NCES) of the U.S. Department of Education.

Established in 1989, the National Forum is the principal mechanism for implementing the goals of the Cooperative System. The National Forum is an independent body whose mission is to propose and support improvements in the Cooperative System and the elementary and secondary education data base through the collaborative effort of all of its members. Nearly a hundred individuals who represent State and Federal education agencies and national education organizations make up the Forum's membership. The National Education Statistics Agenda Committee (NESAC) of the National Forum prepared the *Guide*, which has been endorsed by the Forum. The *Guide* is available through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

OVERVIEW

NATIONAL FORUM ON EDUCATION STATISTICS


LEGISLATION
CONGRESS
The Hawkins-Stafford Amendment of 1988
(Public Law 100-297)
The National Cooperative Education Statistics System
IMPLEMENTATION
UNITED STATES
DEPARTMENT OF EDUCATION
National Center for Education Statistics/
Office of Educational Research and Improvement
The National Forum on Education Statistics
Membership (92 members as of October 1990)
o 68 Voting Members:
- 56 State Education Agency Members; and
- 12 Federal Agency Members
o 24 Associate Members:
- 16 National/State Organization Members; and
- 8 Federal Organization Members

A Guide To Improving the National Education Data System

Executive Summary

Good data help to make good policies! That simple credo embodies the rationale for this document--the first "product" of the newly created National Forum on Education Statistics. Prepared by the National Education Statistics Agenda Committee (NESAC) of the National Forum, the *Guide* marks a first step in fulfilling the mandate to develop and propose an agenda for improving the Nation's elementary and secondary education statistics system in order to meet the needs of education policymakers, planners, and practitioners in the 1990s and beyond.

Good data help to make good policies! That simple credo embodies the rationale for this document . . . .

The *Guide* examines the strengths and weaknesses of the current elementary and secondary education data system and presents recommendations for improving the system's usefulness. Much of what we say is not new. In recent years scholars, policymakers, practitioners, and others have devoted considerable attention to the question of how to improve national education data.

The Guide examines . . . the current . . . education data system and presents recommendations for improving the system's usefulness.

What is unique, and even revolutionary, about the *Guide* is that it is the product of a broad-based, consensus-building process. For the first time, representatives of State and Federal education agencies, as well as of organizations with a major interest in education data, have agreed on the types of improvements that are most important for enhancing the usefulness of the national elementary and secondary education statistical data base.

A useful and responsive national education data system must . . . accommodate the . . . needs of its various "education stakeholders." Thus, the Guide offers [an] . . . itinerary . . . to address important policy concerns.

Despite differences in data needs and diverse constituencies, members of the National Education Statistics Agenda Committee have worked cooperatively to develop a broad agenda for action.

A useful and responsive national education data system must, to the extent feasible, accommodate the high-priority data needs of its various "education stakeholders." Thus, the *Guide* offers a data improvement itinerary for overcoming significant limitations in the ability of the present data system to address important policy concerns. The recommendations represent destination points that the system can, and eventually should, reach.

However, there is a difference between ***establishing*** a statistical improvement agenda and ***implementing*** that agenda. Proposing an itinerary of important statistical improvement destinations, while valuable, is not the same as determining how best to reach them or even which improvements to address first.

Taking those steps will require additional research that explicitly considers the strengths and weaknesses of specific implementation strategies from such perspectives as information quality, cost, burden, and compatibility with current activities. Thus, the National Forum's next step will be to convene a special task force to develop a plan for implementing the statistical system improvements recommended in this *Guide*.

Key Principles and Precepts

To guide the National Forum toward the goal of creating a national system of high-quality, policy-relevant education statistics, the Forum developed the following key principles that define the critical characteristics of data which the system should produce. The data should:

- provide ***valid*** measures of the underlying phenomena of interest;
- provide ***reliable*** measures of the underlying phenomena of interest;
- be reported at a ***level of aggregation*** consistent with the policy questions of interest; and
- be reported in a ***timely*** fashion on a schedule that is consistent with decisionmaking calendars.

The National Forum . . . developed the following key principles [and] . . . core precepts . . . .

The National Forum also developed the following five ***core precepts*** governing the creation of this statistical improvement *Guide*:

1. to focus on the high-priority information needs of education policymakers;
2. to focus on questions of what and why rather than how;
3. to focus, initially, on education descriptors and indicators;
4. to focus on four specific data domains--background/demographics, education resources, school processes, and student outcomes; and
5. to focus on issues of data validity, reliability, level of aggregation, and timeliness in identifying current system limitations.

Organization of the *Guide*

The *Guide* examines the nature and adequacy of national data in the ***four major domains*** of background/demographics, education resources,

The Guide examines . . . national data in the four major domains of background/demographics, education resources, school processes, and student outcomes.

school processes, and student outcomes. For each domain, the *Guide*:

- discusses the potential importance of the data for policy purposes, including the particular questions that should be informed by such data;
- discusses the nature and limitations of current national collections and reports;
- discusses potential strategies for improvement; and
- summarizes specific data improvement recommendations.

Rationale and Important Recommendations by Data Domain

The following sections of this summary explain the rationale for requesting data in each of the four major domains included in this study and list the specific statistical improvement recommendations that grew out of the analysis of each data domain.

I. Student and Community Background Statistics

To be truly useful, a national education statistics system must . . . provide data on the demographic or background "inputs" that are likely to affect the condition and performance of the Nation's schools.

To be truly useful, a national education statistics system must go beyond collecting data about the education system itself. The statistics system must also provide data on the demographic or background "inputs" that are likely to affect the condition and performance of the Nation's schools. The policy questions concerning demographic statistics have a number of important implications for data collection and reporting.

At the most fundamental level, policymakers must have the information they need to discern broad trends and patterns in key demographic characteristics of students, families, and school communities.

Given the mobility of student populations and the frequent changes in their circumstances, data on such characteristics should be collected often and reported with regularity.

In addition, accurate, reliable, and comparable data are needed to allocate resources fairly. When jurisdictions employ idiosyncratic definitions of student characteristics such as race, income, and attendance that are used in allocating education program funds, the integrity and fairness of the programs and their funding systems are compromised. Thus, whenever demographic data are used to allocate program funds, it is especially important that definitions be consistent and uniformly applied.

Finally, since demographic data are likely to be related to other data in many types of analyses, policymakers should be able to look at variables of interest by demographic subgroup, particularly in addressing questions of equity. Whether a policy question focuses on individuals (e.g., Are students receiving instruction from "qualified" teachers?) or aggregates (e.g., Are schools and districts employing appropriately "qualified" instructors?), it is relevant to ask whether the findings are consistent for all racial/ethnic groups and social classes.

Whether a policy question focuses on individuals . . . or aggregates . . . , it is relevant to ask whether the findings are consistent for all racial/ethnic groups and social classes.

Recommendations. The National Forum makes the following seven recommendations for improving data collection and reporting in the domain of ***student and community background statistics***:

1. Using data extracted from State administrative record systems on the universe of public school students, the National Center for Education Statistics (NCES) should annually collect and report State- and national-level aggregates on the following student background characteristics:

   - Fall membership counts by race/ethnicity by grade; and
   - Fall membership counts by sex by grade.

2. NCES should annually report State- and national-aggregate statistics collected by other agencies on the following student subgroups:

   - Handicapped students served, by type of handicap;
   - Free-lunch participants; and
   - Participants in compensatory, bilingual, and vocational education programs.

3. NCES, in cooperation with other Federal and State agencies, should work toward the regular collection and reporting of the following State and national student background statistics:

   - Limited-English-proficiency status;
   - Student handicapping conditions by race;
   - Participation in prekindergarten education programs;
   - Student health status (e.g., nutrition, health-related absenteeism, and drug and alcohol use); and
   - Student mobility and migrant status.

4. The Office of Educational Research and Improvement (OERI) should fund special studies investigating the efficacy of using free-lunch data as proxies for student socioeconomic status (SES) and the costs, benefits, and burdens associated with regularly collecting and reporting alternative SES measures. These studies should specifically examine issues of validity, reliability, and usefulness of free-lunch and alternative measures for different types of reporting and analysis as well as administrative issues related to the collection and reporting of such measures.

5. NCES should develop the capacity to collect and report data on private school student background characteristics that are parallel to those being developed for the universe of public school students. Data might come from the NCES Private School Survey and the Schools and Staffing Survey, and they should be reported as national aggregates and, to the extent feasible, State aggregates.

NCES should develop the capacity to collect and report data on private school student background characteristics that are parallel to those being developed for the universe of public school students.

6. In reporting measures of education resources, school processes, and student outcomes from its sample and universe surveys, NCES should attempt, to the extent feasible and appropriate, to provide disaggregated data using the following student and community background characteristics:

   - Sex;
   - Racial/ethnic-group affiliation;
   - Limited-English-proficiency status;
   - Community wealth; and
   - Family income.

7. NCES should consider reporting distributional patterns for the following student and community background variables in conjunction with particular resource, process, and outcome measures:

   - Public/private school enrollment;
   - Student employment status;
   - Measures of family background (e.g., parents' education, language spoken in the home);
   - Student mobility; and
   - Student handicapping condition.

II. Education Resource Statistics

Education resources include both ***fiscal resources*** and ***human and nonhuman resources***. States--and school districts within States--have varying ***amounts*** of money available to them, ***governmental levels*** providing funds (e.g., Federal, State, intermediate, and local), and ***funding sources*** (taxation, aid, and nontax revenues). In recent years, education policymakers and the public have shown a growing concern about how education resources are allocated and what the relationship is between education spending and student achievement. Such concerns focus on five key questions:

In recent years, education policymakers and the public have shown a growing concern about . . . the relationship . . . between education spending and student achievement.

1. What is the total amount spent on elementary and secondary education at the national, State, and local levels?

2. What percentage of that amount comes from each source of revenue (Federal, State, intermediate, local, and private)?
3. What do education dollars buy at the national, State, and local levels?
4. How are education resources distributed among the States and school districts?
5. How do States allocate education resources given differences in levels of student need, fiscal capacity, and cost?

The Federal Government already collects most of the data needed to address these major education resource policy questions . . . . Thus, some of the recommendations . . . would require enhancements or improvements . . . rather than new data collections.

The Federal Government already collects most of the data needed to address these major education resource policy questions, at least for reporting at the national and State levels of aggregation. The redesign of the NCES Common Core of Data (CCD) has resulted in the creation of the new "National Public Education Financial Survey," which provides the most comprehensive and detailed data on education revenues and expenditures that have ever been available. Thus, some of the recommendations for this domain would require enhancements or improvements in current data collections rather than new collections.

In other resource areas, much developmental work and examination of alternative strategies will be necessary before implementation can proceed. For example, economists have developed a variety of techniques for adjusting resource costs across States and over time (a major improvement recommendation in this domain). Each model has its strengths and weaknesses; each is appropriate for some purposes more than others; and each carries with it different cost and burden implications. Thus,

considerable work is still needed before the National Forum can recommend implementing specific nationally adjusted education resource figures.

Recommendations. The National Forum makes the following 12 recommendations for improving data collection and reporting in the domain of ***education resource statistics***:

1. The National Center for Education Statistics (NCES) should collect and report a set of national- and State-level education revenue, expenditure, and human resource measures on an annual basis, using data items from the "National Public Education Financial Survey" and the Common Core of Data (CCD) Nonfiscal Surveys.

2. NCES should continue to provide training and technical support to States to "crosswalk" data elements specified by the current CCD Financial Survey as well as other assistance necessary for meeting the Handbook 2R2 classifications.

3. NCES and other Federal agencies should investigate the feasibility of developing a State-by-State statistical measure to adjust education resource data for differences among States and to report education resource trends over time in constant dollars.

4. NCES and other Federal agencies should investigate the feasibility of developing a State-by-State statistical measure to adjust salary data for differences among States and to report education salary trends over time in constant dollars.

5. NCES and other Federal agencies should engage in research and development efforts that will enable them to make accurate, comparable, and informative international comparisons of U.S. education resource commitments with those of other industrialized nations.

6. NCES should continue to collect and report data from the CCD aggregated to the State level on an annual basis. However, NCES should, over time, develop policies and procedures for the regular collection and reporting of district-level resource data. In moving toward district-level resource collections, NCES should be particularly cognizant of

Considerable work is still needed before the National Forum can recommend implementing specific nationally adjusted education resource figures.

NCES and other Federal agencies should investigate the feasibility of . . . a . . . statistical measure to adjust education resource data for differences among States . . . .

(1) identifying potential reports that such data could generate and (2) the capacity of States to provide district-level data.

7. NCES should expand the annual CCD "State Administrative Records Survey" to include: (1) an average teacher salary measure that takes into account contract, career ladder, and other special-incentive pay and (2) a teacher salary measure that takes into account degree status and experience.

NCES should make a long-term commitment to establishing a program- and functionally based accounting system.

8. NCES should make a long-term commitment to establishing a program- and functionally based accounting system. This will provide NCES, policy analysts, and other education researchers with better information about how education funds are spent and make it possible to relate program resources to the specific education needs of students. The particular program levels to be collected should be determined after additional study, taking into account the costs and burdens associated with the development of comparable definitions of relevant program categories across different locales.

9. NCES should expand the Federal Government's survey of private schools to include resource information. Wherever feasible, NCES should report private-school resource data from its surveys on a State-by-State basis.

10. NCES should establish, as a long-term objective, the collection of data regarding the status of buildings, including the number, age, condition, and facility needs of the Nation's schools.

NCES should regularly report data on the number and descriptive characteristics . . . of instructional, instructional support, and noninstructional staff in the Nation's schools.

11. NCES should regularly report data on the number and descriptive characteristics (i.e., age, sex, race) of instructional, instructional support, and noninstructional staff in the Nation's schools. Such data should be reported at the State level to the extent feasible.

12. NCES should establish, as a long-term objective, measures that indicate total dollar investments in education personnel. These measures should be specific to different types of staff (e.g., teachers, administrators, instructional aides) and include both direct compensation expenditures (salaries) and indirect compensation (fringe benefits).

III. School Process Statistics

School process measures address questions such as who provides classroom instruction? what is being taught (and how well)? and what are the characteristics of the teaching and learning environment? It is the view of the National Forum that ***school process measures constitute a necessary and important component*** for monitoring the condition of education; informing education policy at the national, State, and local levels; and providing better mechanisms for accountability.

For the policymaker, there are three purposes for regular collection and reporting of school process measures. First, process measures can ***describe instructional practice*** and, with this, the degree to which quality education opportunities are available to all students in all schools.

Second, process measures can ***monitor reform***--the degree to which recommended changes in education practice are actually being implemented. Education in the United States is periodically subject to reform efforts that call for substantial changes in current practice, including changes in curriculum emphasis, organizational structure, and teaching techniques. Monitoring these reforms requires a regular system of indicators.

Finally, process measures can ***help to explain discrepancies in education performance*** and point to reasons why student achievement may vary across locales and over time. For example, if student outcomes are improving more in one State than in another, knowledge of differences in curricula, instruction, and school organization can provide policymakers

School process measures . . . can describe instructional practice . . . monitor reform . . . [and] help to explain discrepancies in education performance . . . .

If student outcomes are improving more in one State than in another, knowledge of differences in curricula, instruction, and school organization can provide . . . clues to explain these differences and point . . . toward promising future policy directions.

with clues to explain these differences and point them toward promising future policy directions.

We have divided our analysis of school process data into the following three interrelated sub-domains that, taken together, comprise the context of instructional practice:

- ***implemented curriculum***--including what is actually taught in classrooms: content and topic coverage, time and emphasis devoted to subject areas, course taking, and the context in which instruction occurs;
- ***teaching quality***--including professional preparation, use of appropriate instructional strategies, acceptance of responsibility for student success and failure, and certification in assigned subject field; and
- ***school environment***--including academic emphasis, school size and structure, curriculum offerings, discipline, staff development, and availability of high-technology equipment (e.g., computers).

[NCES] should . . . report national and comparable State-level data on student enrollment in academic and vocational secondary courses by race/ethnicity, sex, and other demographic subgroups . . . .

Recommendations. The National Forum makes the following six recommendations for improving data collection and reporting in the domain of ***school process statistics***:

1. The National Center for Education Statistics (NCES) should regularly collect and report national and comparable State-level data on student enrollment in academic and vocational secondary courses by race/ethnicity, sex, and other demographic subgroups as feasible and appropriate. To accomplish this, NCES must first develop procedures for ensuring the collection of broadly comparable data across States on secondary-school course offerings. The Office of Educational Research and Improvement (OERI)[1] should also determine the usefulness of collecting State-level data on time allocated to subjects in the elementary grades (such as that

[1] The Office of Educational Research and Improvement is part of the U.S. Department of Education.

currently collected in the Schools and Staffing Survey [SASS] of NCES).

2. NCES should regularly collect and report data at the national level on broad indicators of teacher preparation (e.g., certification status, number of courses taken in teaching area, major field, and preservice and inservice development and training experiences) by specific teaching assignment. Trends on these measures should be related directly to changes in the size of the teacher work force as well as student enrollment patterns (i.e., teacher supply and demand). In addition, NCES should investigate the feasibility of regularly collecting and reporting comparable State-by-State statistics using such measures and of reporting on the numbers of new teachers certified via "alternative" routes.

3. NCES should regularly collect and report data at the national level on student "opportunities to learn" specific instructional topics. Work should begin first on the high-priority subjects included in the national education goals (English, mathematics, science, history, and geography) and then proceed to other subjects. OERI should develop new measures of the depth and breadth of coverage for these topics for possible future collection and reporting at the national and State levels.

4. NCES should regularly collect and report nationally representative data on the school environment including school-level measures of academic emphasis (e.g., curricular offerings and enrollments) and decisionmaking practices. To the extent feasible, NCES should relate such data to important background characteristics of students attending these schools (e.g., sex, race/ethnicity, handicapping condition, socioeconomic status) as well as to key demographic characteristics of the larger school community.

5. In order to measure progress in meeting the national goal of "safe, disciplined, and drug-free schools" (goal No. 6 adopted by the Nation's Governors and the President), NCES or other Federal agencies should regularly collect and report national- and State-level data on drug and alcohol use and violence in the schools, as well as on policies and programs undertaken to prevent such occurrences. To develop measures of these, NCES should proceed immediately to examine the feasibility of augmenting its current sample surveys (e.g., SASS), mounting a new survey (e.g., using the Fast Response Survey System), or working in concert with other agencies concerned with these issues (e.g., Centers for Disease Control, Drug Enforcement

NCES should regularly collect and report data . . . on . . . teacher preparation . . . student "opportunities to learn" . . . the school environment . . . [and] progress in meeting the national goal of "safe, disciplined, and drug-free schools" . . . .

OERI should fund special studies to improve the measurement of important school processes . . . .

Agency). To the extent feasible, these data should be related to the background characteristics of students and their home communities.

6. OERI should fund special studies to improve the measurement of important school processes including academic emphasis, subject-specific instructional strategies, depth and breadth of content coverage, the use of new technologies in instructional programs (e.g., personal computers), and methods of training teachers and assessing their competence. Newly developed measures created through such special studies may eventually be incorporated into future regular national collections and reports.

IV. Student Outcome Statistics

In past years, parents, legislators, Governors, and leaders of business and industry frequently asked questions such as, "How are our education dollars being spent?" Today, the question is more likely to be, "What is the result of spending our education dollars?" The Nation's citizens and policymakers increasingly demand information about the results--the outcomes--of schooling.

The Nation's citizens and policymakers increasingly demand information about the results--the outcomes--of schooling.

The types of information sought by policymakers about student education outcomes are reflected in the following questions.

- What do our students know? Do they know as much as students in other States and countries?
- How many of our students complete high school? How many drop out? How do our graduation and dropout rates compare with those of other States and the Nation as a whole?
- What do students do after high school? How many attend postsecondary institutions? How many enter the military? How many enter the job market? How satisfied are they with their schooling experience?

- Are achievement levels, completion rates, attitudes about schooling, and the postsecondary-education enrollment and employment status of our students improving, staying the same, or declining over time?

These questions reflect the Nation's growing concern about what students learn throughout their K-12 education and whether students are being prepared for the transition to postsecondary education, employment, and adulthood as responsible and productive citizens. The questions also illustrate the need for accurate information that policymakers can use in making decisions about allocating new education resources or reallocating existing ones; continuing current programs or developing new ones; and developing or revising policies, rules, and regulations.

Because States have the primary responsibility for education, it is important that they be able to assess and compare their progress toward meeting important national goals such as those established by the Governors and the President at the 1989 education summit.

It is important that [States] be able to assess and compare their progress toward meeting important national goals such as those established . . . at the 1989 education summit.

Valid, comparable student outcome measures will improve public understanding of the condition of education and may help mobilize public interest in and support for the Nation's schools. Conversely, the inappropriate collection and reporting of such measures may result in data that are not truly comparable and that do not reflect how schools are doing and what students are achieving.

We recommend that outcome measures be gathered and regularly reported in four distinct areas: student achievement, student participation and progression, student status after high school, and student attitudes and

aspirations. In addition, all outcome measures should be reported by race/ethnicity and sex in order to shed light on disparities in education achievement among important subgroups of the population.

Recommendations. The National Forum makes the following 11 recommendations for improving data collection and reporting in the domain of ***student outcome statistics*** across the four key sub-domains:

Comparable and uniform student achievement measures . . . should provide State-by-State comparisons of knowledge in core content areas (reading, writing, mathematics, science, history, and geography) in grades 4, 8, and 12 . . . .

Student Achievement

1. Comparable and uniform student achievement measures (using the State National Assessment of Educational Progress [State-NAEP],[2] if proven valid and reliable) should provide State-by-State comparisons of knowledge in core content areas (reading, writing, mathematics, science, history, and geography) in grades 4, 8, and 12 at least once every 4 years. Knowledge in other subject areas such as literature, music, art, computer applications, and civics should also be periodically assessed to the extent feasible.

2. Differences in performance among important subgroups of students should be examined and reported at the national and State levels. Subgroups should include those traditionally associated with sex, race and ethnic origin, economic status, and language status. Provision should be made for States, if they wish, to analyze the sample of the student achievement study in their States so that comparisons could be made among education units by significant subgroups.

3. Trends in student performance over time should be reported for all grades and subjects in which the achievement data are collected at the national and State levels. However, reporting trends over time should not restrict the development and use of new assessment forms that tap a broader range of student proficiencies than those typically associated with "paper and pencil" tests.

[2] State component of the National Assessment of Educational Progress.

4. The Office of Educational Research and Improvement (OERI), including the NAEP program, should give priority to research, development, and experimentation with new assessment techniques that can provide broader and more sophisticated measures of student performance.

5. State-by-State student achievement measures should include, in each administration, a performance assessment component(s). OERI should enter into cooperative research and development arrangements with State and local large-scale assessment programs.

6. Student achievement results should be scaled in a way that allows comparisons with international achievement measures such as those from the International Assessment of Educational Progress (IAEP) and the International Association for the Evaluation of Educational Achievement (IEA). Comparisons with international achievement measures should be made on a regular basis in order to monitor progress in meeting the recently developed national education goal adopted by the Governors and the President.

Student achievement results should be scaled in a way that allows comparisons with international achievement measures . . . .

7. Information should be collected on courses of study completed at the time of national and State student achievement assessments so that links might be made between courses/curricula completed and assessment results.

8. Discussion should continue into possible linkages of specific features of the National Assessment of Educational Progress (NAEP) and the National Education Longitudinal Study (NELS) survey instruments as well as better coordination of the two surveys by the National Center for Education Statistics (NCES). One possibility is to equate the NELS achievement instruments to the NAEP items.

Student Participation and Progression

9. NCES, in cooperation with State departments of education, should obtain and periodically report comparable State-by-State data on school dropouts and completers by race/ethnicity, sex, and other important subgroups. The specific measures calculated should include:

   - An annual dropout rate as defined in the NCES Dropout Field Test or as modified by the results of the field test;

- A synthetic cumulative dropout rate; and
- A school completion rate incorporating, to the extent feasible, the recommendations of the Council of Chief State School Officers (CCSSO) School Completion Task Force.

Student Status After High School

10. NCES, in cooperation with other Federal agencies and State departments of education, should investigate the feasibility of obtaining and periodically reporting comparable State-by-State data on the following subjects by race/ethnicity, sex, and other important subgroups:

    - The percentage of high school graduates who enroll in different types of postsecondary institutions within a year of graduation;
    - The percentage of high school graduates who enter the military within a year of graduation;
    - The percentage of high school graduates who enter the civilian labor force within a year of graduation; and
    - The percentage of high school graduates in the civilian labor force who are employed/not employed one year after graduation.

NCES . . . should investigate the feasibility of obtaining and . . . reporting comparable State-by-State data on . . . the percentage of high school graduates who enroll in different types of postsecondary institutions . . . .

Student Attitudes and Aspirations

11. OERI should fund special studies related to the regular collection and reporting of data on student attitudes toward education and schooling and their future aspirations. These studies should investigate both the technical validity and reliability of potential statistics of this type and their perceived usefulness for purposes of education policymaking and planning.

Expectations and Future Actions

The 36 recommendations contained in the *Guide* provide an ambitious but essential initial blueprint for reform of the national

elementary and secondary education data collection and reporting system. Implementing these improvements would substantially alter the landscape of this system.

It is important to make several points about the potential impact of the recommendations. First, many of the recommendations can be implemented ***through enhancements or modifications of existing surveys*** rather than through new data collections. In these cases, implementation is likely to be more feasible and less costly than might otherwise be true. The tables that accompany this document identify the specific agencies and national surveys that may be affected by implementing the recommendations contained in the *Guide*.

Many of the [Guide's] recommendations can be implemented through enhancements or modifications of existing surveys rather than through new data collections.

Second, a basic ***data system infrastructure*** is being created through the National Cooperative Education Statistics System for implementing many of the statistical improvements we contemplate. Third, there appears to be a reasonable ***balance of burdens*** between the States and the Federal Government associated with implementing the recommended improvements.

Finally, although some recommendations can be acted upon relatively quickly, others will ***require considerable time***.

What are our expectations for this document? First and foremost, we expect that the *Guide* will ***begin a systematic process of national reform in education statistics***. Specifically, we expect that:

We expect that the Guide will begin a systematic process of national reform in education statistics.

- all members and associates of the National Forum will commit their constituent organizations to investigating the possibility of making the improvements necessary to meet the objectives outlined in the data improvement recommendations;

The National Forum will develop a strategic plan for implementing the recommendations based on the results of these discussions.

- this guide will serve as a basis for subsequent interchanges among members of the National Forum and relevant agency(ies) at the Federal, State, and local levels on strategies for implementing these recommendations; and

- the National Forum will develop a ***strategic plan*** for implementing the recommendations based on the results of these discussions.

Our expectations for this report are ambitious. We believe that the broad-based, consensus-building approach by which the report was developed gives credence to its recommendations. We anticipate that those who develop and implement education statistical policies will find this improvement agenda useful and will take the agenda seriously. We hope they believe, as we do, that creating a national education data system based on a spirit of cooperation and consensus building will result in the highest quality data, superior policymaking, and, ultimately, a more effective and efficient education system.

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Student and Community Background Statistics

(Appearing on Pages 105-107 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational Longitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
State and national fall enrollment counts by grade, by race and sex	School/District and State Nonfiscal Surveys								xx
State and national "special needs" student counts	School/District and State Nonfiscal Surveys					OSERS OESE OVAE OPBE	FNS		
Development of new State and national aggregate student counts						OSERS OPBE OBEMLA OME OCR	ACYF Census CDC	Counts of: LEP, Handicap by Race, Pre-K, "At Risk," Student Mobility	xx
Improved socio-economic status measures							Census FNS	Free-lunch Counts and Potential Alternatives	
Private school student background characteristics	Private School Survey	Private School Component							
Analysis of education data by sex, race, LEP status, wealth & income	All Components	All Components	All Components	All Components	All Collections	OBEMLA OCR OPBE	Census BLS		

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

ACYF = Administration for Children, Youth, and Families, Department of Health and Human Services
BLS = Bureau of Labor Statistics, Department of Labor
CDC = Centers for Disease Control, Department of Health and Human Services
Census = Bureau of the Census, Department of Commerce
FNS = Food and Nutrition Service, Department of Agriculture
NCES = National Center for Education Statistics
OBEMLA = Office of Bilingual Education and Minority Language Affairs
OCR = Office for Civil Rights
OESE = Office of Elementary and Secondary Education
OME = Office of Migrant Education
OPBE = Office of Planning, Budget, and Evaluation
OSERS = Office of Special Education and Rehabilitative Services
OVAE = Office of Vocational and Adult Education

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Student and Community Background Statistics (continued)

(Appearing on Pages 105–107 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational Longitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Analysis of education data by other selected background characteristics	All Components	All Components	All Components	All Components	All Collections	OSERS OME OPBE	Census BLS		

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

BLS = Bureau of Labor Statistics, Department of Labor
Census = Bureau of the Census, Department of Commerce
NCES = National Center for Education Statistics
OME = Office of Migrant Education
OPBE = Office of Planning, Budget, and Evaluation
OSERS = Office of Special Education and Rehabilitative Services

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Education Resource Statistics

(Appearing on Pages 108–110 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational Longitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Revenues, expenditures, and human resources aggregate data	Fiscal and Nonfiscal Surveys								xx
Training & support for fiscal crosswalk and fiscal redesign	Fiscal Survey								
State resource cost adjuster								State Resource Cost Adjuster	
State salary cost adjuster								State Salary Cost Adjuster	
International cost of education comparisons						OPBE	Census	International Cost of Education Comparisons	
District level finance collections	Fiscal Survey						Census	Local Fiscal Collection	xx

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

OPBE = Office of Planning, Budget, and Evaluation

Census = Bureau of the Census, Department of Commerce

NCES = National Center for Education Statistics

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Education Resource Statistics (continued)

(Appearing on Pages 108–110 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational Longitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Teacher salary	Fiscal Survey								xx
Program accounting system								Program Accounting	
Private school resource information	Private School Component								
School facilities data								Facilities Data Collection	xx
Numbers and characteristics of school staff	School/District and State Nonfiscal Surveys								xx
Fiscal investments in personnel								Fiscal Investment in Education Personnel	xx

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

NCES = National Center for Education Statistics

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: School Process Statistics

(Appearing on Pages 111–112 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational Longitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Course enrollments	State Nonfiscal Survey	Teacher Components District/School Components					NSF	Academic and Vocational Coursetaking	xx
Teacher preparation and teacher supply and demand	State Nonfiscal Survey	School/District Components Teacher Components					NSF	Teacher Preparation Teacher Supply and Demand	xx
Topic/content coverage and opportunity to learn		Teacher Components	Teacher Components					Topic/Content Coverage Opportunity to Learn	
School environment		Public and Private School Components	School Components						
Drug/alcohol use and school violence		School Components			Fast Response Survey System (FRSS)	OPBE	CDC DEA	Drug/Alcohol Use School Violence	
Research and development on school process measures								Improved School Process Measures	

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

CDC = Centers for Disease Control, Department of Health and Human Services
DEA = Drug Enforcement Administration, Department of Justice
NCES = National Center for Education Statistics
NSF = National Science Foundation
OPBE = Office of Planning, Budget, and Evaluation

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Student Outcome Statistics

(Appearing on Pages 113–115 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational ongitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Student achievement by State				Student Components**					xx
Subgroup differences in student achievement				Student/Teacher and School Components					xx
Trends in student achievement				Student/Teacher and School Components					
Research and development in student achievement measures								More Sophisticated Student Outcome Measures	
Performance assessment				Student Components				Performance Assessment	
International comparisons				Student Components	IAEP/IEA				

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

** = If proven valid and reliable

IAEP = International Assessment of Educational Progress

IEA = International Association for the Evaluation of Educational Achievement

NCES = National Center for Education Statistics

Potential Data Development Implications of National Forum on Education Statistics Guide Recommendations: Student Outcome Statistics (continued)

(Appearing on Pages 113–115 of National Agenda Guide)

Data Implications for:

Recommendations	NCES Common Core of Data Surveys (CCD)	NCES Schools and Staffing Survey (SASS)	NCES National Educational ongitudinal Survey (NELS)	NCES National Assessment of Educational Progress (NAEP)	Other NCES Data Collections	Other U.S. Department of Education Data Collections (Agency)	Other Federal Government Data Collections (Agency)	New Research & Development Initiatives (Development Area)	State Collections or Subsidies* (xx = Yes)
Course enrollment/ achievement linkages				Student/Teacher and School Components					
NAEP/NELS linkages								NAEP/NELS Linkages	
High school dropouts and completers	School/District and State Nonfiscal Surveys								xx
Postsecondary educational experiences	School/District and State Nonfiscal Surveys				Integrated Postsecondary Education Data System		BLS Department of Defense		xx
Student attitudes/ aspirations								Student Attitudes/ Aspirations	

*Where indicated, States would have to commit additional effort/resources to implement the recommendations.

BLS = Bureau of Labor Statistics, Department of Labor

NCES = National Center for Education Statistics

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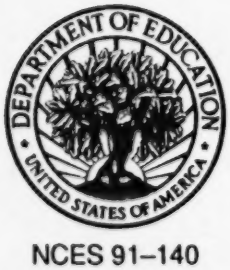

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